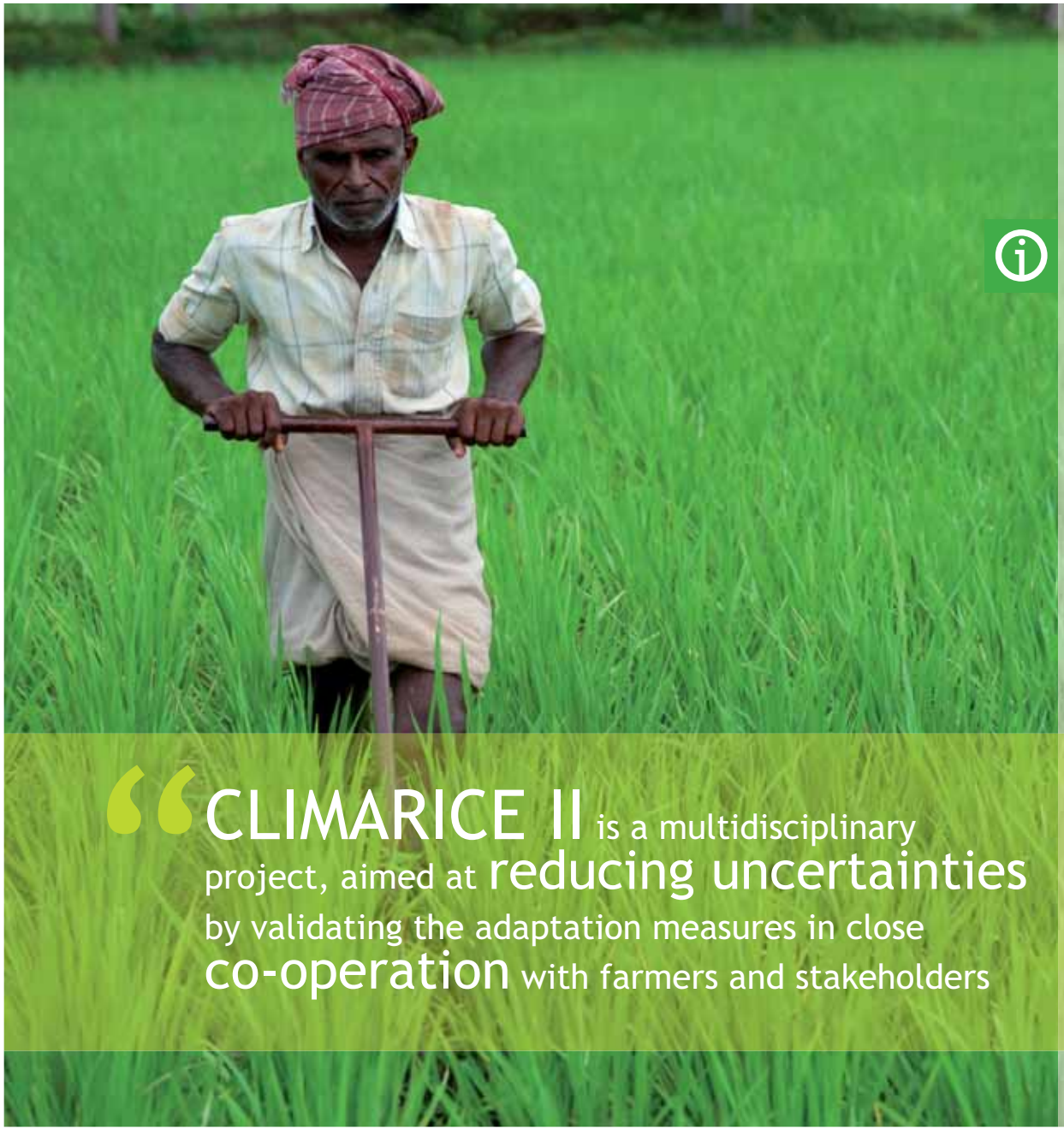
ClimaRice II:
Sustaining rice production in a changing climate

Reducing climate uncertainties and validating selected adaptation measures on farmers fields



The ClimaRice II project (2009-2011) focuses on climate change, argiculture, water, food security and livelihoods.
The main goal is to increase knowledge and capacity of stakeholders to adapt to climate change impacts.

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is a multidisciplinary project, aimed at reducing uncertainties by validating the adaptation measures in close co-operation with farmers and stakeholders. This ensures local ownership to the technologies and provide options to farmers to adapt to climate change.

The overall project goal is to reduce uncertainties in future monsoon projections, demonstrate the applicability of selected adaptation techniques and enhance stakeholder adaptive capacity to climate change on rice production and irrigation water management practices through field demonstration, institutional and capacity strengthening in selected areas of the Cauvery and Krishna River Basins.

Major Objectives

- To reduce uncertainties in climate models' projections, and demonstrate the applicability of selected adaptation measures
- To standardize and mainstream climate change adaptation measures / technologies / practices, and activities developed in the ongoing project (CLIMARICE) into the regional adaption programs
- To standardize methodologies that could be up scaled to other areas impacted by climate change
- To actively encourage stakeholder participation and build stakeholder capacity including those of farmers, agricultural and water managers to climate change adaptation, and increase their awareness on the uncertainties involved and on the difference between natural climate variability and climate change

CLIMARICE II project: www.climarice.com

Farmers inputs from a Focus Group discussion in Thanjavur district

Farmers expressed that erratic and unseasonal rainfall due to climate change results in poor crop establishment and losses in yield. The following were some of the adaptation measures suggested by farmers and stakeholders:

- Early planting (by 15 days) to escape from the unseasonal rainfall and flooding
- Alternative cropping strategy including Maize, Sesame and Sunflower crops that require less water
- Use of bio-fertilizers such as Blue green algae, *Azospirillum* and *Phosphobacterium* to improve soil fertility
- Rice varieties that suits the changing climate
- Use of SRI and AWD systems of rice cultivation Strengthening of irrigation channels to minimize water losses and erosion
- Micro-irrigation to improve WUE and crop-water productivity
- Soil mulching by using green manure
- Small water collection ponds in the field

“Farmers experience and knowledge
is an important source of information to the
scientific analysis

One of the major focus areas of the project is capacity building and training of stakeholders to increase their knowledge about climate change, impacts and adaptation.

"Enlighten the distinction between natural climate variability and climate change, and raise the awareness of climate change impacts on agriculture

Project Contribution

The project will provide useful inputs that could help to:

- Identify and implement the integrated adaptation strategies to sustain rice productivity under changing climatic conditions
- Foster the understanding, co-operation and exchange of information between scientists and stakeholders, including farmers, managers and policy makers to strengthen science-policy linkages and develop adaptation measures
- Enlighten the distinction between natural climate variability and climate change, and raise the awareness of climate change impacts on agriculture
- Suggest guidelines to integrate climate change considerations into agricultural policies
- Offer transferable frameworks and techniques that can be applicable to other rice growing areas
- Develop project outputs to help guide decision making and improve the data and information base
- Core results to contribute to policy development related to agriculture and future food security issues over the two river basins

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